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CLAIMS

1. An ultrahigh-strength hot-rolled steel, wherein its chemical composition comprises, by weight:

 $0.05\% \le C \le 0.1\%$ $0.7\% \le Mn \le 1.1\%$ $0.5\% \le Cr \le 1.0\%$ $0.05\% \le Si \le 0.3\%$ $0.05\% \le Ti \le 0.1\%$ $Al \le 0.07$ $S \le 0.03\%$ $P \le 0.05\%$

the balance being iron and impurities resulting from the smelting, said steel having a bainite-martensite structure that may contain up to 5% ferrite.

2. The steel as claimed in claim 1, wherein its composition furthermore comprises:

20 $0.08\% \le C \le 0.09\%$ $0.8\% \le Mn \le 1.0\%$ $0.6\% \le Cr \le 0.9\%$ $0.2\% \le Si \le 0.3\%$ $0.05\% \le Ti \le 0.09\%$ 25 $Al \le 0.07$ $S \le 0.03\%$ $P \le 0.05\%$

the balance being iron and impurities resulting from the smelting, said steel having a bainite-martensite structure that may contain up to 5% ferrite.

- 3. The steel as claimed in either of claims 1 and 2, wherein furthermore its structure consists of 70 to 90% bainite, 10 to 30% martensite and 0 to 5% ferrite.
- 4. The steel as claimed in any one of claims 1 to 3, which has a tensile strength R_{m} of 950 MPa or higher.

- 5. The steel as claimed in any one of claims 1 to 4, which has an elongation at break A of 10% or higher.
- 6. The steel as claimed in any one of claims 1 to 5, which has a yield strength E of 680 MPa or higher.
 - 7. The steel as claimed in any one of claims 1 to 6, which has an E/R_m ratio of less than 0.8.
- 10 8. A process for manufacturing a strip of ultrahigh-strength hot-rolled steel as claimed in any one of claims 1 to 7, wherein a slab, whose composition comprises:

 $0.05\% \le C \le 0.1\%$ $0.7\% \le Mn \le 1.1\%$ $0.5\% \le Cr \le 1.0\%$ $0.05\% \le Si \le 0.3\%$ $0.05\% \le Ti \le 0.1\%$ $Al \le 0.07\%$ $S \le 0.03\%$ $P \le 0.05\%,$

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the balance being iron and impurities resulting from the smelting, is hot-rolled, the rolling temperature being below 950°C, then the strip thus obtained is cooled down to a temperature of 400°C or below, maintaining a cooling rate of greater than 50°C/s between 800 and 700°C, and then said strip is coiled at a coiling temperature of 250°C or below.

30 9. The manufacturing process as claimed in claim 8, wherein furthermore a slab whose composition comprises:

 $0.08\% \le C \le 0.09\%$ $0.8\% \le Mn \le 1.0\%$ $0.6\% \le Cr \le 0.9\%$ $0.2\% \le Si \le 0.3\%$ $0.05\% \le Ti \le 0.09\%$ $Al \le 0.07\%$ $S \le 0.03\%$ $P \le 0.05\%$

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the balance being iron and impurities resulting from the smelting, is hot-rolled.

10. The manufacturing process as claimed in either of claims 8 and 9, wherein the hot-rolled steel strip is coated with zinc or a zinc alloy, by dipping it into a bath of molten zinc or zinc alloy following said coiling operation and after having been uncoiled, and then annealed.